



Appl. Filing Date: October 15, 2001
Title: TWO DIMENSIONAL AUTONOMOUS
 ISOTROPIC DETECTION TECHNIQUE
Inventor(s): Harry C. Lee
Atty. Dkt. No.: 1017750-000418 Sheet 1 of 8

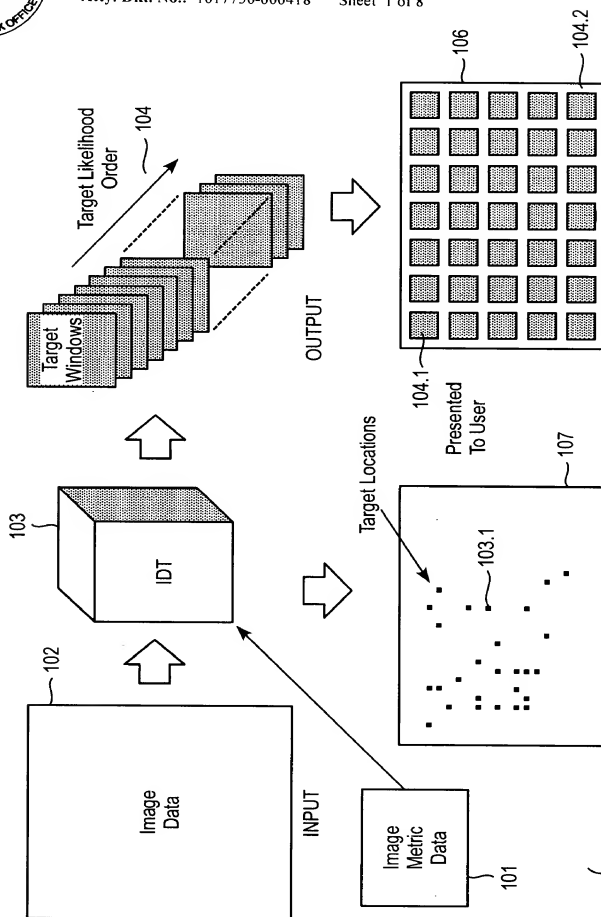


FIG. 1

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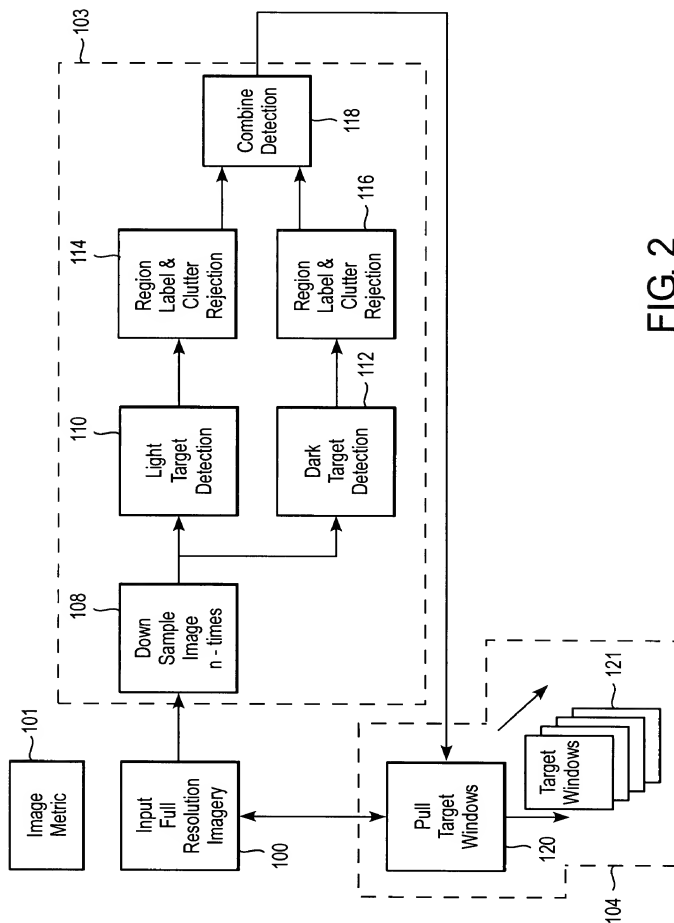
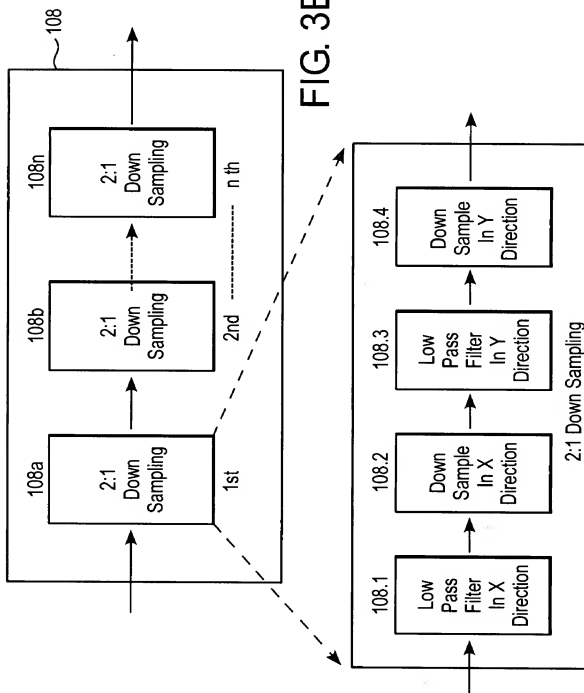
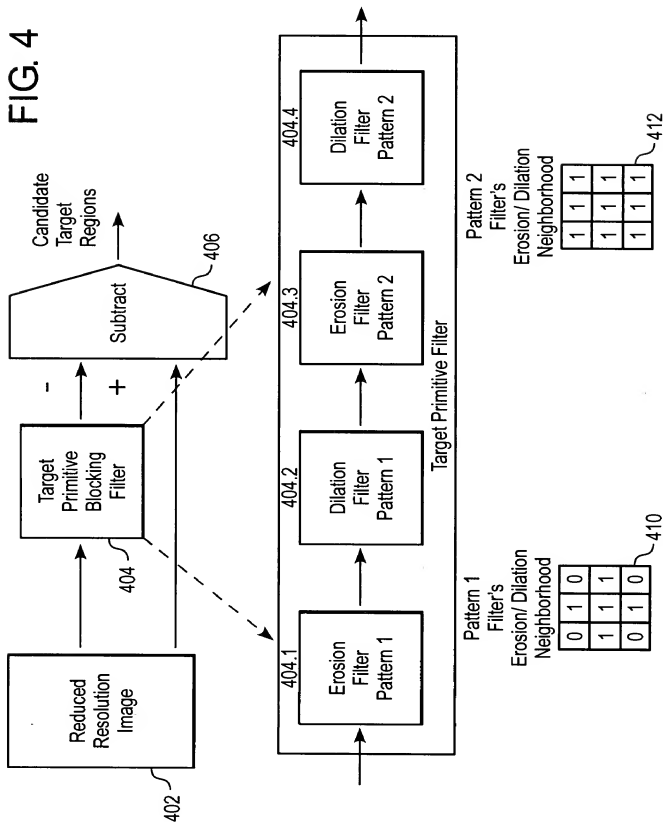


FIG. 2

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REPLACEMENT SHEETS

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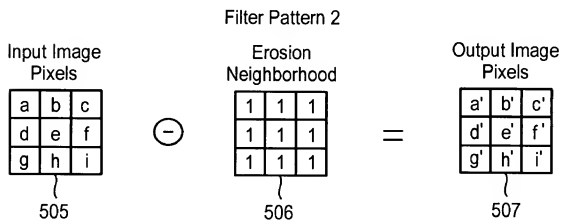
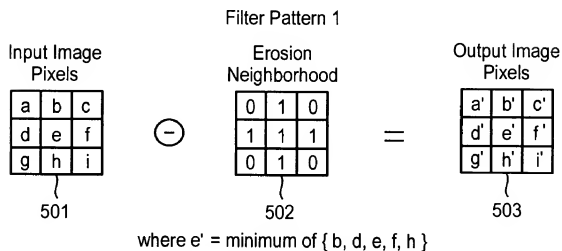


FIG. 5A

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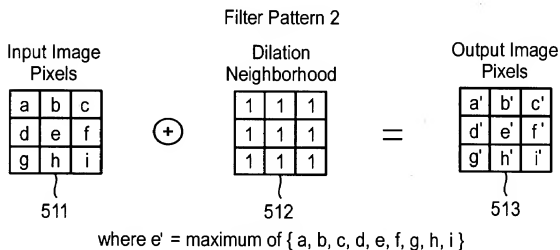
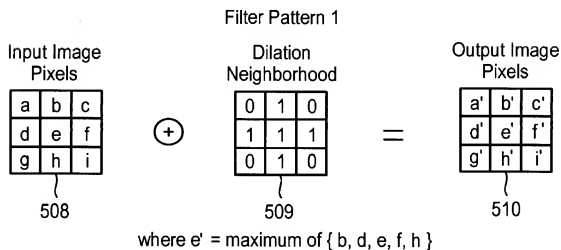


FIG. 5B

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FIG. 6

FIG. 6 is a block diagram illustrating a target primitive filter (604) applied to a reduced resolution image (602).

The process flow is as follows:

- The **Reduced Resolution Image** (602) is input to the **Target Primitive Filter** (604).
- The filter (604) is composed of four sequential stages:
 - 604.1 Dilation Filter Pattern 1**
 - 604.2 Erosion Filter Pattern 1**
 - 604.3 Dilation Filter Pattern 2**
 - 604.4 Erosion Filter Pattern 2**
- The output of stage 604.1 is added (+) to the original image (602).
- The output of stage 604.2 is subtracted (-) from the result of the addition.
- The final result is output as a **Subtract** operation (606).

Two neighborhood matrices are shown for reference:

Pattern 1 Filter's Dilation/ Erosion Neighborhood (612):

0	1	0
1	1	1
0	1	0

Pattern 2 Filter's Dilation/ Erosion Neighborhood (614):

1	1	1
1	1	1
1	1	1

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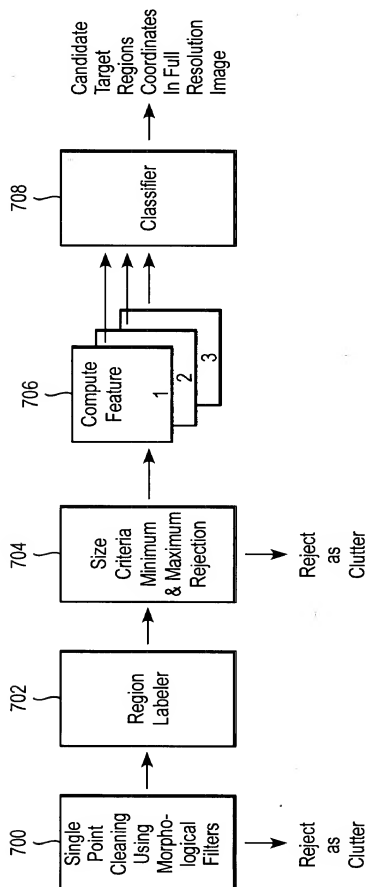


FIG. 7